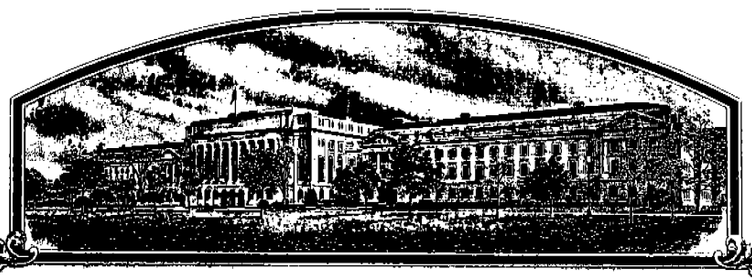

No. 7500070

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## Asgrow Seed Company

Whereas, THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BEAN

'Spurt'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this eighth day of August in the year of our Lord one thousand nine hundred and seventy-five

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

J. D. Atkin
February 21, 1975
7500070

EXHIBIT A

ORIGIN AND BREEDING HISTORY OF ~~XP-B38~~ 'SPURT'

| | |
|---|---|
| 1964 | Original cross Idelight x Harvester. Made in greenhouse in fall. |
| 1965 | $F_1$ grown in greenhouse in spring<br>$F_2$ grown during summer. Single vine selection made. |
| 1966 | $F_3$ reselected |
| 1967 | $F_4$ tested in curly top plot. Reselected |
| 1968 | $F_5$ tested in curly top plot. Increased and observed for uniformity. |
| 1969 | Tested in yield trials. Small increase. Mass selected. |
| 1970 | Tested in yield trials.<br>Increase and mass selection.<br>Designated XP-B38 |
| 1971 | Tested in yield trials throughout company. |
| 1972 | Tested in yield trials throughout company. Sampled outside company. |
| 1973 | Tested in trials throughout company. Sampled outside company. |
| 1974 | Tested in trials.<br>Increase |

Planted the 290 SVS on a single progeny basis. All progenies were evaluated for trueness to type, and all progenies saved were very similar. Any progeny thought to be different was removed completely. The seed from the remaining progenies was harvested as a bulk, and this has now become our basic seed stock.

FORM GR-470
(12-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

| 1. VARIETY NAME OR TEMPORARY DESIGNATION | 2. KIND NAME | FOR OFFICIAL USE ONLY |
|---|---|---|
| ~~XP-B38~~ SPURT 99 14 7/17/75 | Garden Bean | PV NUMBER 7500070 |
| **3. GENUS AND SPECIES NAME** | **4. FAMILY NAME (Botanical)** | FILING DATE 3.13.75 / TIME 10 A.M. |
| Phaseolus vulgaris | Leguminosea | FEE RECEIVED $250 $250 $250 / BALANCE DUE $ — $ — $ — |
| | **5. DATE OF DETERMINATION** 1970 | |

| 6. NAME OF APPLICANT(S) | 7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) | 8. TELEPHONE AREA CODE AND NUMBER |
|---|---|---|
| Asgrow Seed Company | Kalamazoo, Michigan 49001 | (616) 382-4000 |

| 9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) | 10. STATE OF INCORPORATION | 11. DATE OF INCORPORATION |
|---|---|---|
| Corporation | Delaware | March 22, 1968 |

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

Allen R. Trotter
Asgrow Seed Company
Kalamazoo, Michigan 49001

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Botanical Description of the Variety
- [X] 13C. Exhibit C, Objective Description of the Variety
- [X] 13D. Exhibit D, Data Indicative of Novelty
- [X] 13E. Exhibit E, Statement of the Basis of Applicant's Ownership

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [ ] YES [X] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [ ] YES [ ] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? [ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

*The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.*

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

3/10/75 (DATE) — Allen R. Trotter (SIGNATURE OF APPLICANT) 1

(DATE) — (SIGNATURE OF APPLICANT)

7500070

# EXHIBIT B

## BOTANICAL DESCRIPTION OF ~~XP-B38~~ 'SPURT' SNAP BEAN

~~XP-B38~~ 'SPURT' is a snap bean which was developed as a fresh market bean for use in the southeastern U.S. This bean seems to do well during the winter in Florida but like all beans it actually does best under warm conditions of summer. Under summer conditions in Idaho it is about two days earlier than Tendercrop.

The plant is medium to large in size with a compact, upright habit of growth. The flowers are scattered throughout the plant. The leaves are wrinkled, dull, medium thick and large in size. The center leaflet is taper pointed and the leaves have a slight pubescence on both surfaces. The leaf color is medium green.

The pods are medium green in color, average about 14cm in length, and are generally round in cross section. They are quite straight and smooth, without constrictions, somewhat fiberous, and stringless. The rate of seed development is medium and the pod flesh is firm.

The seeds and flowers are white. Seed quality is quite good. Seed size averages about 95 per ounce, but varies according to season and growing conditions.

~~XP-B38~~ 'SPURT' has been tested and found to be susceptible to Anthracnose. ~~B38~~ 'SPURT' is resistant to Curly Top, Common Bean Mosaic, N.Y. 15 Bean Mosaic and to some races of Rust found in Florida. It is not known as to which or to how many races of Rust ~~B38~~ 'SPURT' is resistant. In several trials in Florida ~~B38~~ 'SPURT' has remained practically free of Rust while other varieties in the trial have been severely damaged.

There is no evidence to suggest that ~~XP-B38~~ 'SPURT' has any special resistance to insects. The fact that this line does well in Florida during the winter would indicate that it is somewhat tolerant of cool conditions.

Exhibit B is written from several years experience and is thus rather generalized due to the fact that conditions vary from year to year. Exhibit C is compiled from results of a one year replicated trial planted especially for PVP measurements where varieties can be compared in side by side plantings. Exhibits B and C therefore, compliment each other and may vary slightly.

FORM APPROVED. OMB NO. 40-R3712

FORM GR-470-12 (10-2-72)

EXHIBIT C (Bean)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

# OBJECTIVE DESCRIPTION OF VARIETY

## BEAN (*PHALEOLUS VULGARIS*)

INSTRUCTIONS: See Reverse

NAME OF APPLICANT(S)
ASGROW SEED COMPANY

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

FOR OFFICIAL USE ONLY

PVPO NUMBER
7500070

VARIETY NAME OR TEMPORARY DESIGNATION
~~XP-B38~~ SPURT

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

**1. TYPE:**

[1] 1 = SHAPBEAN 2 = GREEN SHELL 3 = DRY EDIBLE 4 = MULTIPURPOSE

**2. SEASON AND REGION OF ADAPTABILITY IN THE U.S.:**

[2] Grows best during: 1 = SPRING 2 = SUMMER 3 = FALL 4 = WINTER

[6] Best adapted in: 1 = NORTHWEST 2 = NORTHCENTRAL 3 = NORTHEAST 4 = SOUTHEAST 5 = SOUTHWEST 6 = MOST REGIONS

**3. MATURITY** (*Days from seeding to first harvest*):

[6][7] GREEN PODS [ ][ ] GREEN SHELLS [ ][ ] DRY SEEDS

[0][2] NO. DAYS EARLIER THAN ---------- [1]
[ ][ ] NO. DAYS LATER THAN ---------- [ ]

1 = TENDERCROP 2 = KENTUCKY WONDER 3 = KINGHORN WAX 4 = WHITE KIDNEY 5 = MICHELITE 62 6 = DWARF HORTICULTURAL 7 = BUSH BLUE LAKE 8 = OTHER (*Specify*)

**4. PLANT:**

[1] 1 = DETERMINATE, ERECT BUSH 2 = DETERMINATE, SPRAWLING BUSH 3 = DETERMINATE, SEMIPOLE 4 = INDETERMINATE, POLE

[0][4][0] CM. HEIGHT OR LENGTH OF VINE FROM PRIMARY LEAF NODE

[0][0][4] NUMBER PRIMARY BRANCHES PER MAIN STALK

[ ][ ] CM. SPREAD

[0][4] NUMBER INTERNODES ON MAIN STALK BETWEEN PRIMARY LEAF AND BASE OF TERMINAL INFLORESCENCE

[1] Branching habit: 1 = COMPACT 2 = OPEN

[0][2] CM. LENGTH OF FIRST INTERNODE ABOVE PRIMARY LEAF

[1][0] MM. STALK DIAMETER ABOVE FIRST TRIFOLIATE LEAF

[2] Main stalk: 1 = BRITTLE 2 = WIREY [1] 1. STOUT 2. THIN

[3] Flower position:
[3] Pod Position:
1 = LOW, CONCENTRATED 2 = HIGH, CONCENTRATED 3 = SCATTERED

**5. LEAVES:**

[2] 1 = SMOOTH 2 = WRINKLED [2] 1 = DULL 2 = GLOSSY [2] Thickness: 1 = THIN 2 = MEDIUM 3 = THICK

[3] Size: 1 = SMALL (*Earliwax*) 2 = MEDIUM 3 = LARGE (*Tendercrop*) [ ] CM. PETIOLE LENGTH (*To basal leaflets of first trifoliate leaf*)

[2] Tip shape of center leaflet: 1 = ROUNDED 2 = TAPER POINTED 3 = SHARP POINTED

[2] PUBESCENCE - Dorsal:
[2] PUBESCENCE - Ventral:
1 = NONE 2 = SLIGHT 3 = CONSIDERABLE

[2] Color: 1 = LIGHT GREEN (*Bountiful*) 2 = MEDIUM GREEN 3 = DARK GREEN (*Bush Blue Lake*)

'SPURT' 7500070 XP-R38

**6. FLOWERS:**

[1] Color: 1 = WHITE 2 = CREAM 3 = PINK 4 = LILAC 5 = PURPLE
6 = OTHER (Specify)_____

[3] Racemes: 1 = LONG 2 = MEDIUM 3 = SHORT [3] NUMBER FLOWERS PER RACEME

**7. FRESH PODS:** (Edible maturity, averages for 10 pods)

[2] Color: 1 = LIGHT GREEN (Bountiful) 2 = MEDIUM GREEN (Tendergreen) 3 = DARK GREEN (Wade)
4 = LIGHT YELLOW (Brittlewax) 5 = GOLDEN YELLOW (Cherokee Wax) 6 = GREEN-RED VARIAGATED (Horticultural)
7 = OTHER (Specify) _____

[1][4] CM. LENGTH [0][9] MM. WIDTH (Between sutures) [0][9] MM. THICKNESS [1][0] WIDTH / THICKNESS X 10

[4] Cross section pod shape: 1 = FLAT 2 = OVAL 3 = CREASEBACK 4 = ROUND

[2] Curvature: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED

[2] Pubescence: 1 = NONE 2 = SPARSE 3 = CONSIDERABLE

[1] Constrictions: 1 = NONE 2 = SLIGHT 3 = DEEP

[2] Spur: 1 = STRAIGHT 2 = SLIGHTLY CURVED 3 = CURVED

[1] Surface: 1 = SHINY 2 = DULL

[1] Surface: 1 = SMOOTH 2 = BLISTERED

[1] Pod flesh: 1 = LIGHT 2 = DARK

[1] Pod flesh: 1 = FIRM 2 = WATERY

[11] MM. SPUR LENGTH

[2] Suture string: 1 = PRESENT 2 = ABSENT

[3] Fiber: 1 = NONE 2 = SPARSE 3 = CONSIDERABLE

[2] Seed development: 1 = SLOW 2 = MEDIUM 3 = FAST

[7] NUMBER OF SEEDS PER POD

[ ] NUMBER PODS PER PLANT (Once over harvest)

[ ] NUMBER MARKETABLE PODS PER PLANT (Once over harvest)

[1] Machine harvest: 1 = ADAPTED 2 = NOT ADAPTED

**8. SEED COAT COLOR:**

[1] 1 = MONOCHROME 2 = POLYCHROME

[1] 1 = SHINY 2 = DULL

[1] Primary color: 1 = WHITE 2 = YELLOW 3 = BUFF 4 = TAN
[ ] Secondary color: 5 = BROWN 6 = PINK 7 = RED 8 = PURPLE
9 = BLUE 10 = BLACK 11 = OTHER (Specify)_____

[ ] Color pattern: 1 = SPLASHED 2 = MOTTLED 3 = STRIPED 4 = FLECKED 5 = DOTTED

[ ] Secondary color location: 1 = HILAR RING 2 = HILAR SURFACE 3 = STROPHIOLE 4 = MICROPYLE 5 = SIDES 6 = DORSAL SURFACE 7 = NOT RESTRICTED TO ANY AREA 8 = COMBINATION OF LOCATIONS (Specify)_____

[1] Hilar ring: 1 = NOT PRESENT 2 = NARROW 3 = BUTTERFLY SHAPED

[2] Vein-like under coat pattern: 1 = ABSENT 2 = PRESENT

**9. SEED SHAPE AND SIZE:**

[1] Hilum view: 1 = ELLIPTICAL 2 = OVAL 3 = ROUND

[1] Side view: 1 = OVAL 2 = ROUND 3 = KIDNEY 4 = TRUNCATE ENDS

[2] Cross section: 1 = ELLIPTICAL 2 = OVAL 3 = CORDATE 4 = ROUND

[29] GM. WEIGHT PER 100 SEEDS

[4] Classification: 1 = PEA 2 = MEDIUM 3 = MARROW 4 = KIDNEY 5 = PINTO

[6.0] MM. WIDTH (Dorsal to ventral)

[5.7] MM. THICKNESS (Side to side)

[1][2] MM. LENGTH

[0][1][1] WIDTH / THICKNESS X 10

'SPURT' 7500070 XP-B38

**10. ANTHOCYANIN:** *(1 = Absent 2 = Present):*

| | | | | |
|---|---|---|---|---|
| [1] FLOWERS | [1] STEMS | [1] PODS | [1] SEEDS | [1] LEAVES |

**11. DISEASE RESISTANCE** *(0 = Not tested; 1 = Susceptible; 2 = Resistant):*

| | | | |
|---|---|---|---|
| [2] | RUST *(Specify race)* Some Florida Races | [0] | ANGULAR LEAF SPOT |
| [0] | BACTERIAL WILT | [2] | COMMON BEAN MOSAIC |
| [1] | ANTHRACNOSE | [0] | YELLOW BEAN MOSAIC |
| [0] | SOUTHERN BEAN MOSAIC | [0] | FUSARIUM ROOT ROT |
| [2] | CURLY TOP | [2] | N.Y. 15 BEAN MOSAIC |
| [0] | POWDERY MILDEW | [0] | BEAN MOSAIC VIRUS 4 |
| [0] | HALO BLIGHT | [0] | FUSCOUS BLIGHT |
| [0] | ALFALFA MOSAIC VIRUS | [0] | ALFALFA MOSAIC VIRUS 2 |
| [0] | POD MOTTLE VIRUS | [0] | RED NODE VIRUS |
| [0] | ROOT KNOT NEMATODE | [0] | OTHER *(Specify)* |

**12. INSECT RESISTANCE:** *(0 = Not tested; 1 = Susceptible; 2 = Resistant)*

| | | | |
|---|---|---|---|
| [0] | APHIDS | [0] | LEAF HOPPERS |
| [0] | POD BORER | [0] | LYGUS |
| [0] | THRIPS | [0] | WEAVILS |
| [0] | SEED CORN MAGGOT | [ ] | OTHER *(Specify)* |

**13. PHYSIOLOGICAL RESISTANCE:** *(0 = Not tested; 1 = Susceptible; 2 = Resistant)*

| | | | |
|---|---|---|---|
| [0] HEAT | [0] COLD | [0] DROUGHT | [ ] OTHER *(Specify)* |

**REFERENCES:** The following publications may be used as a reference in completing this form:


1. Beans of New York. Vol. 1 Part II of Vegetables of New York. U.P. Hedrick et al. J. B. Lyon Company, Albany, N.Y. 1931.
2. Yarnell, S. H., Cytogenetics of the Vegetable Crops IV. Legumes. Bot. Rev. 31:247 - 330. 1965.
3. USDA Yearbook of Agriculture. 1937.


**COLOR:** Nickerson's or any recognized color fan may be used to determine the colors.

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EXHIBIT D

PROOF OF NOVELTY OF ~~XP-B38~~ 'SPURT' SNAP BEAN

The combination of characteristics found in ~~XP-B38~~ 'SPURT' would place this variety in a rather small class. Some of these characters are:

1. Resistance to Curly Top.

2. Resistance or very high tolerance to some varieties of Rust found in Florida.

3. The amount of fiber found in the pods.

The fiber development in ~~XP-B38~~ 'SPURT' would definately put this variety in the fresh market rather than processor type of bean. This bean could be used for processing only when grown under ideal conditions to prevent an excessive build-up of fiber.

The variety most nearly like ~~XP-B38~~ 'SPURT' is Astro but Astro is susceptible to Curly Top as are all fresh market beans designed for use in the southeastern United States.

In summary, we believe that the combination of Curly Top resistance, and characteristics of a fresh market bean make ~~XP-B38~~ 'SPURT' a unique variety.

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EXHIBIT E

Statement of the Basis of Applicant's Ownership

'SPURT'
Bean ~~XP B38~~

'SPURT'
Bean ~~XP B38~~ was originated and developed by Dr. C. G. Briggs and Dr. John Atkin, both Asgrow plant breeders. By agreement between employee and Asgrow Seed Company, all rights to any invention, discovery, or development made by an employee are assigned to the company. No rights to such invention, discovery, or development are retained by the employee.

8/1

## INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, 6525 Belcrest Road, Hyattsville, Maryland 20782. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Insert the date the applicant determined that he had a new variety based on the definition in Section 41 (a) of the Act and decision is made to increase the seed.

13a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

13b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

13c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

13d Provide complete data indicative of novelty. Seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty may be submitted. Seeds submitted may be sterile.

13e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.